

cover 422 and/or the top surface of the OLED 426. In the illustrated embodiment, the touch pad 420 is circular. Furthermore, the circular touch pad 420 may include a button and therefore it may further include circularly annular OLED 426, circularly annular touch sensing layer 424, and a circularly annular cover 422 to provide space for the button.

[0179] While this invention has been described in terms of several preferred embodiments, there are alterations, permutations, and equivalents, which fall within the scope of this invention. For example, although the invention was primarily directed at a circular touch pad, it should be appreciated that this is not a limitation and that the principles disclosed herein may equally applied to other shaped touch pads. It should also be noted that there are many alternative ways of implementing the methods and apparatuses of the present invention. For example, with regards to light based touch pads, the light sources may be integrated with touch sensing nodes as described in U.S. patent application Ser. No. 11/483,008, which is herein incorporated by reference. It is therefore intended that the following appended claims be interpreted as including all such alterations, permutations, and equivalents as fall within the true spirit and scope of the present invention.

What is claimed is:

1. A multifunctional handheld device capable of operating in different modes, the multifunctional handheld device comprising:

a single input arrangement that provides inputs for each mode of the multifunctional handheld device, the single input arrangement including at least an input pad that provides signals when touched or pressed, the input pad being divided into one or more input areas that change in accordance with the current mode of the multifunctional handheld device; and

a display mechanism that presents graphical elements to indicate the configuration of the input areas at the input pad, each mode of the multifunctional handheld device providing a different configuration of input areas and graphical elements associated therewith.

2. The multifunctional handheld device as recited in claim 1 wherein the display mechanism further provides visual feedback indicative of which input areas are being touched or pressed.

3. The multifunctional handheld device as recited in claim 1 wherein the display mechanism is integrated with the input pad.

4. The multifunctional handheld device as recited in claim 3 wherein the display mechanism is hidden from view underneath a top surface of the input pad, and wherein the graphical elements are presented at the top surface of the input pad.

5. The multifunctional handheld device as recited in claim 3 further comprising a second display device that provides graphical information associated with each mode of the multifunctional handheld device.

6. The multifunctional handheld device as recited in claim 3 wherein the display mechanism is a graphics generator that includes one or more light sources for generating light, and one or more graphics layers having features for creating symbols from the generated light.

7. The multifunctional handheld device as recited in claim 3 wherein the display mechanism is not a liquid crystal display (LCD).

8. The multifunctional handheld device as recited in claim 1 wherein the display mechanism is distinct from the input pad.

9. The multifunctional handheld device as recited in claim 1 wherein the input pad is circular, the circular input pad is divided into a different set of angularly segmented input areas for each mode of the multifunctional handheld device, and the graphical elements are displayed in a circular fashion representative of the angularly segmented input areas for each mode of the multifunctional handheld device.

10. The multifunctional handheld device as recited in claim 1 wherein the multifunctional handheld device operates in at least a phone mode and a media player mode.

11. The multifunctional handheld device as recited in claim 1 wherein the input pad is a touch pad that provides one or more touch signals when touched, a clickable pad that provides one or more button signals when pressed, or a clickable touch pad that provides one or more button signals when pressed and one or more touch signals when touched.

12. The multifunctional handheld device as recited in claim 10 wherein the input arrangement further comprises a clickable button that is integrated with the input pad, the clickable button providing a button signal when pressed.

13. A touch pad that displays graphical elements to indicate input areas of the touch pad, each input area representing a different functionality, the input areas and graphical elements changing in accordance with different input modes.

14. The touch pad as recited in claim 13 comprising:

a touch sensing layer capable of being divided into one or more input areas, the layout and functionality of the input areas being based on a current input mode; and a graphical generator integrated with the touch sensing layer, the graphical generator presenting graphical elements at each of the input areas, the graphical elements indicating the location and functionality of the input areas.

15. The touch pad as recited in claim 14 wherein the touch sensing layer is optically transmissive, and wherein the graphics generator is disposed below the optically transmissive touch sensing layer.

16. The touch pad as recited in claim 14 wherein the touch sensing layer is disposed below the graphics generator.

17. The touch pad as recited in claim 14 wherein the graphics generator comprises:

one or more light sources for generating light; and one or more graphics layers having features for creating symbols from the generated light.

18. The touch pad as recited in claim 17 wherein the features are masking elements.

19. The touch pad as recited in claim 17 wherein the features are light excitable elements.

20. The touch pad as recited in claim 13 further comprising a cover disposed over the touch sensing layer and graphics generator, the cover acting as a light diffuser and hiding the under layers from view.

21. The touch pad as recited in claim 13 further comprising a light panel for producing visual effects separately or together with the graphics generator.

22. The touch pad as recited in claim 21 wherein the light panel is capable of highlighting the graphical elements generated via the graphics generator.

23. A touch pad, comprising:

a touch sensing layer;